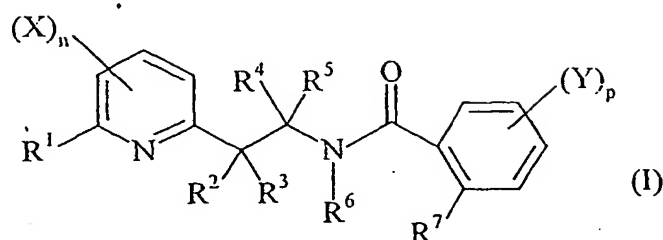


CLAIMS

1. A compound of general formula (I):



in which :

- n is 1, 2 or 3;

- X is the same or different and is a hydrogen atom, a halogen atom, a nitro group, a cyano group, a hydroxy group, an amino group, a sulfanyl group, a pentafluoro- $\lambda^6$ -sulfanyl group, a formyl group, a formyloxy group, a formylamino group, a carboxy group, a carbamoyl group, a N-hydroxycarbamoyl group, a carbamate group, a (hydroxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl group, a C<sub>1</sub>-C<sub>8</sub>-alkyl, a C<sub>2</sub>-C<sub>8</sub>-alkenyl, a C<sub>2</sub>-C<sub>8</sub>-alkynyl, a C<sub>1</sub>-C<sub>8</sub>-alkylamino, a di-C<sub>1</sub>-C<sub>8</sub>-alkylamino, a C<sub>1</sub>-C<sub>8</sub>-alkoxy, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkoxy having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulfanyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulfanyl having 1 to 5 halogen atoms, a C<sub>2</sub>-C<sub>8</sub>-alkenyloxy, a C<sub>2</sub>-C<sub>8</sub>-halogenoalkenyloxy having 1 to 5 halogen atoms, a C<sub>3</sub>-C<sub>8</sub>-alkynyloxy, a C<sub>3</sub>-C<sub>8</sub>-halogenoalkynyloxy having 1 to 5 halogen atoms, a C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, a C<sub>3</sub>-C<sub>8</sub>-halogenocycloalkyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbamoyl, a di-C<sub>1</sub>-C<sub>8</sub>-alkylcarbamoyl, a (N-C<sub>1</sub>-C<sub>8</sub>-alkyl)oxycarbamoyl, a C<sub>1</sub>-C<sub>8</sub>-alkoxycarbamoyl, a (N-C<sub>1</sub>-C<sub>8</sub>-alkyl)-C<sub>1</sub>-C<sub>8</sub>-alkoxycarbamoyl, a C<sub>1</sub>-C<sub>8</sub>-alkoxycarbonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkoxycarbonyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonyloxy having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonylamino, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonylamino having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylaminocarbonyloxy, a di-C<sub>1</sub>-C<sub>8</sub>-alkylaminocarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-alkyloxycarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphenyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphenyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphinyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphinyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphonyl having 1 to 5 halogen atoms, a (C<sub>1</sub>-C<sub>6</sub>-alkoxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a (C<sub>1</sub>-C<sub>6</sub>-alkenyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a (C<sub>1</sub>-C<sub>6</sub>-alkynyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a

(benzyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a benzyloxy, a benzylsulfanyl, a benzylamino, a phenoxy, a phenylsulfanyl or a phenylamino;

- R<sup>1</sup> is a hydrogen atom, a halogen atom, a nitro group, a cyano group, a hydroxy group, an amino group, a sulfanyl group, a pentafluoro-λ<sup>6</sup>-sulfanyl group, a formyl group, a formyloxy group, a formylamino group, a carboxy group, a carbamoyl group, a N-hydroxycarbamoyl group, a carbamate group, a (hydroxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl group, a C<sub>1</sub>-C<sub>8</sub>-alkyl, a C<sub>2</sub>-C<sub>8</sub>-alkenyl, a C<sub>2</sub>-C<sub>8</sub>-alkynyl, a C<sub>1</sub>-C<sub>8</sub>-alkylamino, a di-C<sub>1</sub>-C<sub>8</sub>-alkylamino, a C<sub>1</sub>-C<sub>8</sub>-alkoxy, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkoxy having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulfanyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulfanyl having 1 to 5 halogen atoms, a C<sub>2</sub>-C<sub>8</sub>-alkenyloxy, a C<sub>2</sub>-C<sub>8</sub>-halogenoalkenyloxy having 1 to 5 halogen atoms, a C<sub>3</sub>-C<sub>8</sub>-alkynyloxy, a C<sub>3</sub>-C<sub>8</sub>-halogenoalkynyloxy having 1 to 5 halogen atoms, a C<sub>3</sub>-C<sub>8</sub>-cycloalkyl, a C<sub>3</sub>-C<sub>8</sub>-halogenocycloalkyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbamoyl, a di-C<sub>1</sub>-C<sub>8</sub>-alkylcarbamoyl, a N-C<sub>1</sub>-C<sub>8</sub>-alkyloxycarbamoyl, a C<sub>1</sub>-C<sub>8</sub>-alkoxycarbamoyl, a N-C<sub>1</sub>-C<sub>8</sub>-alkyl-C<sub>1</sub>-C<sub>8</sub>-alkoxycarbamoyl, a C<sub>1</sub>-C<sub>8</sub>-alkoxycarbonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkoxycarbonyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonyloxy having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylcarbonylamino, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonylamino having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylaminocarbonyloxy, a di-C<sub>1</sub>-C<sub>8</sub>-alkylaminocarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-alkyloxycarbonyloxy, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphenyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphenyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphinyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphinyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphonyl having 1 to 5 halogen atoms, a (C<sub>1</sub>-C<sub>6</sub>-alkoxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a (C<sub>1</sub>-C<sub>6</sub>-alkenyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a (C<sub>1</sub>-C<sub>6</sub>-alkynyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a (benzyloxyimino)-C<sub>1</sub>-C<sub>6</sub>-alkyl, a benzyloxy, a benzylsulfanyl optionally substituted with 1 to 5 halogen atoms, a benzylamino, a phenoxy, a phenylsulfanyl optionally substituted with 1 to 5 halogen atoms or a phenylamino;

with the proviso that X and R<sup>1</sup> are not both a hydrogen atom;

- R<sup>2</sup> and R<sup>3</sup> are the same or different and are a hydrogen atom, a halogen atom, a cyano group, a hydroxy group, a C<sub>1</sub>-C<sub>6</sub>-alkyl, a C<sub>1</sub>-C<sub>6</sub>-halogenoalkyl having 1 to 5 halogen atoms, a C<sub>2</sub>-C<sub>6</sub>-alkenyl, a C<sub>1</sub>-C<sub>6</sub>-alkoxy, a C<sub>1</sub>-C<sub>6</sub>-alkylsulfanyl, a C<sub>1</sub>-C<sub>6</sub>-alkylsulfenyl, a C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, a C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, a C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyloxy or a C<sub>1</sub>-C<sub>6</sub>-alkylcarbonylamino;

or R<sup>2</sup> and R<sup>3</sup> may together form a 3-, 4-, 5- or 6-membered carbocycle;

-  $R^4$  and  $R^5$  are the same or different and are a hydrogen atom, a halogen atom, a cyano group, a  $C_1$ - $C_6$ -alkyl or a  $C_1$ - $C_6$ -halogenoalkyl having 1 to 5 halogen atoms;

or  $R^4$  and  $R^5$  may together form a 3-, 4-, 5- or 6-membered carbocycle;

5 -  $R^6$  is a hydrogen atom, a cyano group, a formyl group, a hydroxy group, a  $C_1$ - $C_6$ -alkyl, a  $C_1$ - $C_6$ -halogenoalkyl having 1 to 5 halogen atoms, a  $C_1$ - $C_6$ -alkoxy, a  $C_1$ - $C_6$ -halogenoalkoxy having 1 to 5 halogen atoms, a  $C_3$ - $C_6$ -cycloalkyl, a  $C_3$ - $C_6$ -halogenocycloalkyl having 1 to 5 halogen atoms, a  $C_2$ - $C_6$ -alkenyl, a  $C_2$ - $C_6$ -alkynyl, a  $C_1$ - $C_6$ -alkoxy- $C_1$ - $C_6$ -alkyl, a  $C_1$ - $C_6$ -cyanoalkyl, a  $C_1$ - $C_6$ -aminoalkyl, a  $C_1$ - $C_6$ -alkylamino- $C_1$ - $C_6$ -alkyl, a di- $C_1$ - $C_6$ -alkylamino- $C_1$ - $C_6$ -alkyl, a  $C_1$ - $C_6$ -alkylcarbonyl, 10 a  $C_1$ - $C_6$ -halogenalkylcarbonyl having 1 to 5 halogen atoms, a  $C_1$ - $C_6$ -alkyloxycarbonyl, a  $C_1$ - $C_6$ -benzyloxycarbonyl, a  $C_1$ - $C_6$ -alkoxy- $C_1$ - $C_6$ -alkylcarbonyl, a  $C_1$ - $C_6$ -alkylsulfonyl or a  $C_1$ - $C_6$ -halogenoalkylsulfonyl having 1 to 5 halogen atoms;

- p is 1, 2, 3 or 4;

15 - Y is the same or different and is a hydrogen atom, a halogen atom, a nitro group, a cyano group, a hydroxy group, an amino group, a sulfanyl group, a pentafluoro- $\lambda^6$ -sulfanyl group, a formyl group, a formyloxy group, a formylamino group, a carboxy group, a  $C_1$ - $C_8$ -alkyl, a  $C_1$ - $C_8$ -halogenoalkyl having 1 to 5 halogen atoms, a  $C_2$ - $C_8$ -alkenyl, a  $C_2$ - $C_8$ -alkynyl, a  $C_1$ - $C_8$ -alkylamino, a di- $C_1$ - $C_8$ -alkylamino, 20 a  $C_1$ - $C_8$ -alkoxy, a  $C_1$ - $C_8$ -halogenoalkoxy having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkoxy- $C_2$ - $C_8$ -alkenyl, a  $C_1$ - $C_8$ -alkylsulfanyl, a  $C_1$ - $C_8$ -halogenoalkylsulfanyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkoxycarbonyl, a  $C_1$ - $C_8$ -halogenoalkoxycarbonyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkylcarbonyloxy, a  $C_1$ - $C_8$ -halogenoalkylcarbonyloxy having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkylsulphenyl, a 25  $C_1$ - $C_8$ -halogenoalkylsulphenyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkylsulphinyl, a  $C_1$ - $C_8$ -halogenoalkylsulphinyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkylsulphonyl, a  $C_1$ - $C_8$ -halogenoalkylsulphonyl having 1 to 5 halogen atoms or a  $C_1$ - $C_8$ -alkylsulfonamide; and

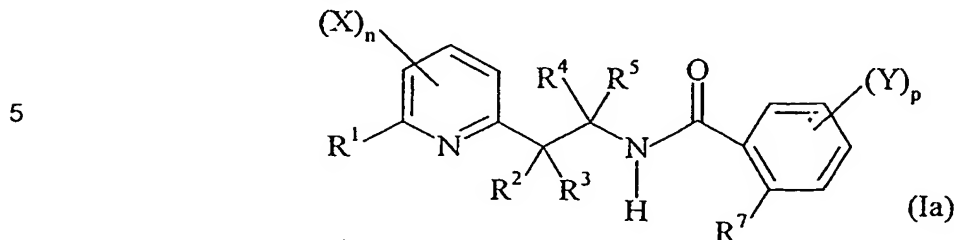
-  $R^7$  is a halogen atom, a nitro group, a cyano group, an amino group, a 30 sulfanyl group, a pentafluoro- $\lambda^6$ -sulfanyl group, a formyl group, a formyloxy group, a formylamino group, a carboxy group, a  $C_1$ - $C_8$ -alkyl, a  $C_1$ - $C_8$ -halogenoalkyl having 1 to 5 halogen atoms, a  $C_2$ - $C_8$ -alkenyl, a  $C_2$ - $C_8$ -alkynyl, a  $C_1$ - $C_8$ -alkylamino, a di- $C_1$ - $C_8$ -alkylamino, a  $C_1$ - $C_8$ -alkoxy, a  $C_1$ - $C_8$ -halogenoalkoxy having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkoxy- $C_2$ - $C_8$ -alkenyl, a  $C_1$ - $C_8$ -alkylsulfanyl, a  $C_1$ - $C_8$ -halogenoalkylsulfanyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkoxycarbonyl, a  $C_1$ - 35  $C_8$ -halogenoalkoxycarbonyl having 1 to 5 halogen atoms, a  $C_1$ - $C_8$ -alkylcarbonyloxy,

a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylcarbonyloxy having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphenyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphenyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphinyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphinyl having 1 to 5 halogen atoms, a C<sub>1</sub>-C<sub>8</sub>-alkylsulphonyl, a C<sub>1</sub>-C<sub>8</sub>-halogenoalkylsulphonyl having 1 to 5 halogen atoms or a C<sub>1</sub>-C<sub>8</sub>-alkylsulfonamide;

as well as its salts, N-oxydes, metallic and metalloidic complexes.

2. A compound according to claim 1, characterised in that R<sup>1</sup> is a hydrogen atom or a halogen atom.
3. A compound according to claim 1 or 2, characterised in that n is 1 or 2.
4. A compound according to any of the claims 1 to 3, characterised in that X is a halogen atom or a C<sub>1</sub>-C<sub>8</sub>-alkyl.
5. A compound according to any of the claims 1 to 4, characterised in that the 2-pyridyl is substituted by X in 3- and/or in 5-position.
6. A compound according to any of the claims 1 to 5, characterised in that R<sup>7</sup> is a halogen atom, a C<sub>1</sub>-C<sub>8</sub>-alkyl or a C<sub>1</sub>-C<sub>8</sub>-halogenoalkyl having 1 to 5 halogen atoms.
7. A compound according to any of the claims 1 to 6, characterised in that p is 1 or 2.
8. A compound according to claim 7, characterised in that p is 1.
9. A compound according to any of the claims 1 to 8, characterised in that Y is a hydrogen atom, a halogen atom or a C<sub>1</sub>-C<sub>8</sub>-alkyl.
10. A compound according to claim 9, characterised in that Y is a hydrogen atom.
11. A compound according to any of the claims 1 to 10, characterised in that the phenyl is substituted by Y preferentially first in para position.

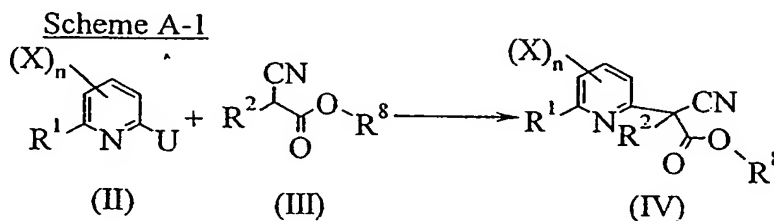
12. A process (A) for the preparation of compound of general formula (Ia)



wherein : -  $R^1, R^2, R^7, X, Y, n$  and  $p$  are as defined in claim 1;  
 -  $R^3$  is a  $C_1$ - $C_6$  alkyl;

which comprises

- a first step according to reaction scheme A-1 :

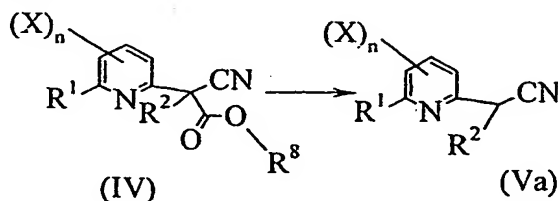


in which : -  $R^1, R^2, X$  and  $n$  are as defined in claim 1;  
 -  $R^8$  is a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;  
 -  $U$  is a leaving group chosen as being a halogen, a  $C_1$ - $C_6$  alkylsulfonate or a  $C_1$ - $C_6$  haloalkylsulfonate;

comprising the arylation of a cyanoacetate derivative of general formula (III) by a pyridine derivative of general formula (II), to provide a 2-(pyridyl)cyanoacetate derivative of general formula (IV), in the presence of a base, at a temperature of from  $0^\circ\text{C}$  to  $200^\circ\text{C}$ ;

- a second step according to reaction scheme A-2 :

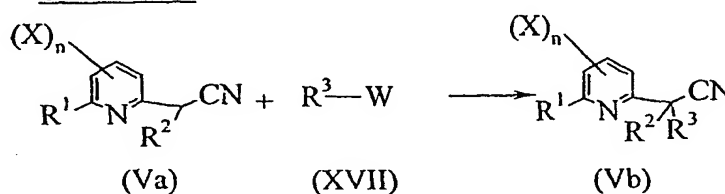
Scheme A-2



in which : -  $R^1, R^2, X, n$  are as defined in claim 1;

- $R^3$  is a hydrogen atom;
  - $R^8$  is a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;
- comprising a basic hydrolysis, an acidic hydrolysis or a displacement by an halide of a compound of general formula (IV) in the same or a different pot to provide, upon heating at a temperature of from 40°C to reflux, a 2-pyridylacetonitrile derivative of general formula (Va);
- a third step according to reaction scheme A-3 :

Scheme A-3

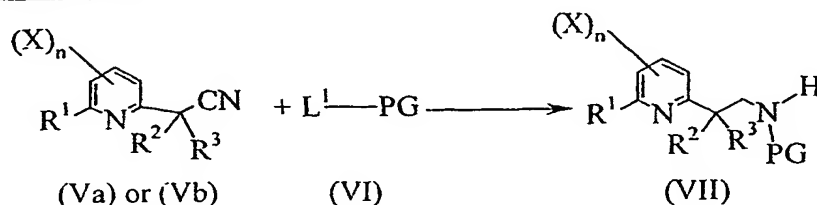


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- in which :
- $R^1$ ,  $R^2$ , X, n are as defined in claim 1;
  - $R^3$  is a  $C_1$ - $C_6$  alkyl;
  - W is a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate, a  $C_1$ - $C_6$  haloalkylsulfonate or a 4-methyl-phenylsulfonate,
- comprising the alkylation of a compound of general formula (Va) by a reagent of general formula (XVII) to provide a compound of general formula (Vb);
- a fourth step according to reaction scheme A-4 :

15

Scheme A-4



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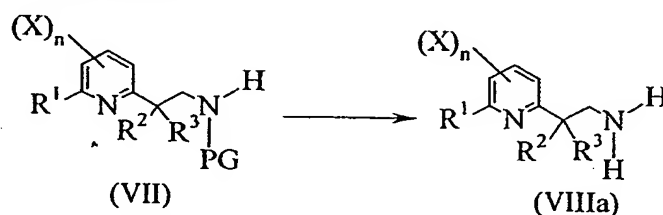
- in which :
- $R^1$ ,  $R^2$ , X, n are as defined in claim 1;
  - $R^3$  is a hydrogen atom or a  $C_1$ - $C_6$  alkyl;
  - L<sup>1</sup> is a leaving group chosen as being a -OR<sup>8</sup> group or a -OCOR<sup>8</sup> group, R<sup>8</sup> being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

- PG represents a protecting group which may be a  $-\text{COOR}^8$  group or  $-\text{COR}^8$  group,  $\text{R}^8$  being a  $\text{C}_1\text{-C}_6$  alkyl, a  $\text{C}_1\text{-C}_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

comprising the reduction, by hydrogenation or by an hydride donor, of a compound of general formula (Va) or (Vb), in the presence of a catalyst and in the presence of a compound of general formula (VI) to produce a compound of general formula (VII), at a temperature of from  $0^\circ\text{C}$  to  $150^\circ\text{C}$  and under a pressure of from 1 bar and 100 bar;

- a fifth step according to reaction scheme A-5 :

Scheme A-5



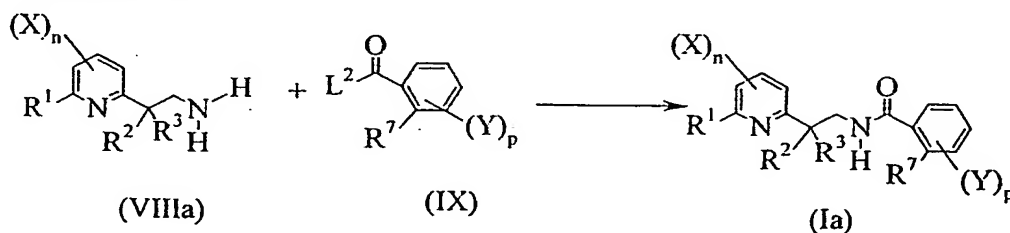
in which :  
 -  $\text{R}^1, \text{R}^2, \text{X}, n$  are as defined claim 1 claim 1;  
 -  $\text{R}^3$  is a  $\text{C}_1\text{-C}_6$  alkyl;

- PG represents a protecting group which may be a  $-\text{COOR}^8$  group or  $-\text{COR}^8$  group,  $\text{R}^8$  being a  $\text{C}_1\text{-C}_6$  alkyl, a  $\text{C}_1\text{-C}_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

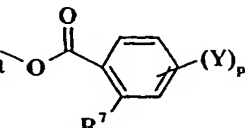
comprising a deprotection reaction, in an acidic or in a basic medium, of a compound of general formula (VII) to provide an amine derivative of general formula (VIIIa) or one of its salt;

- a sixth step according to reaction scheme A-6 :

Scheme A-6

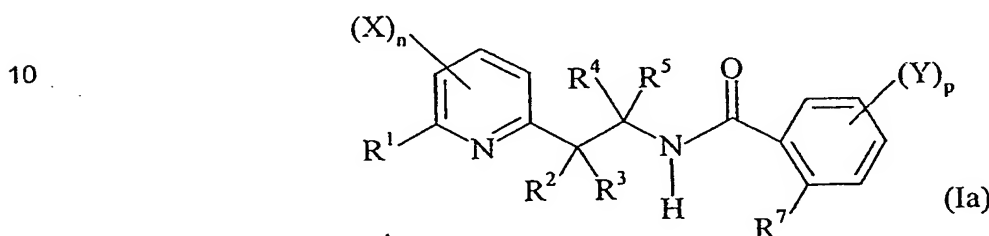


in which :  
 -  $\text{R}^1, \text{R}^2, \text{R}^7, \text{X}, \text{Y}, n$  and  $p$  are as defined in claim 1 claim 1;  
 -  $\text{R}^3$  is a  $\text{C}_1\text{-C}_6$  alkyl;  
 -  $\text{L}^2$  is a leaving group chosen as being a halogen atom, a hydroxyl group, an  $\text{OR}^8$  group, an  $\text{OCOR}^8$ ,  $\text{R}^8$  being a  $\text{C}_1\text{-C}_6$  alkyl, a  $\text{C}_1\text{-C}_6$  haloalkyl,

a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula 

comprising a coupling reaction of an amine derivative of general formula (VIIIa) or  
 5 one of its salt, with a carboxylic acid derivative of formula (IX) to provide a  
 compound of general formula (Ia).

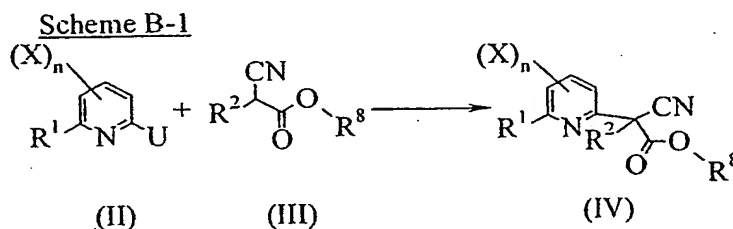
13. A process (B) for the preparation of compound of general formula (Ia)



15 wherein :  
 -  $R^1, R^2, R^7, X, Y, n$  and  $p$  are as defined in claim 1;  
 -  $R^3$  is a  $C_1$ - $C_6$  alkyl;

which comprises

- a first step according to reaction scheme B-1 :



in which :  
 -  $R^1, R^2, X$  and  $n$  are as defined in claim 1;

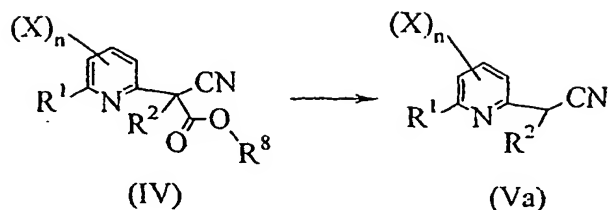
-  $R^8$  is a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

25 -  $U$  is a leaving group chosen as being a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate or a  $C_1$ - $C_6$  haloalkylsulfonate;

comprising the arylation of a cyanoacetate derivative of general formula (III) by a  
 pyridine derivative of general formula (II) to provide a 2-pyridylcyanoacetate  
 derivative of general formula (IV);

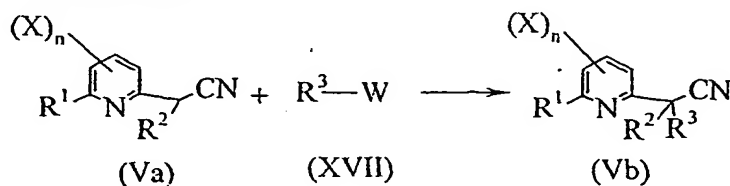
30 - a second step according to reaction scheme B-2 :



Scheme B-2

in which : -  $R^1, R^2, X$  and  $n$  are as defined in claim 1;

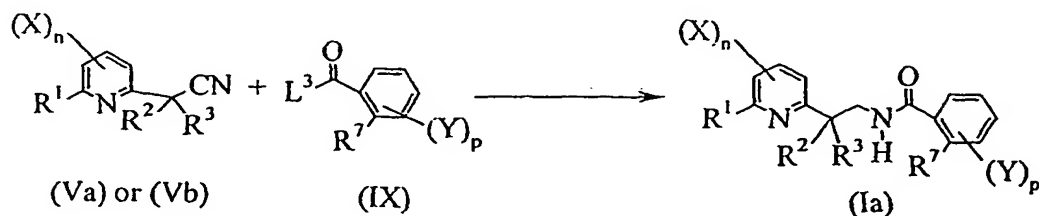
- $R^8$  is a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;
- comprising a basic hydrolysis, an acidic hydrolysis or a displacement by an halide of a compound of general formula (IV) in the same or a different pot to provide, upon heating at a temperature of from  $40^\circ\text{C}$  to reflux, a 2-pyridylacetonitrile derivative of general formula (Va);
- a third step according to reaction scheme B-3 :

Scheme B-3

in which : -  $R^1, R^2, X, n$  are as defined in claim 1;

- $R^3$  is a  $C_1$ - $C_6$  alkyl;
- $W$  is a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate, a  $C_1$ - $C_6$  haloalkylsulfonate or a 4-methyl-phenylsulfonate,
- comprising the alkylation of a compound of general formula (Va) by a reagent of general formula (XVII) to provide a compound of general formula (Vb);
- a fourth step according to reaction scheme B-4 :

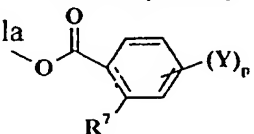
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Scheme B-4

in which : -  $R^1, R^2, R^7, X, Y, n$  and  $p$  are as defined in claim 1;

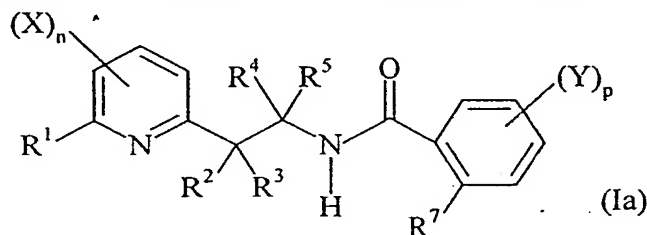
-  $R^3$  is a  $C_1$ - $C_6$  alkyl;

-  $L^3$  is a leaving group chosen as being  $-OCOR^8$ ,  $R^8$  being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; - OCHO,  $-SCSN(Me)_2$  or a group of formula



comprising the reduction by hydrogenation or by an hydride of a compound of general formula (Va) or a compound of general formula (Vb) in the presence of a catalyst and in the presence of a compound of general formula (IX) to produce a compound of general formula (Ia), at a temperature of from  $0^\circ\text{C}$  to  $150^\circ\text{C}$  and under a pressure of from 1 bar and 100 bar.

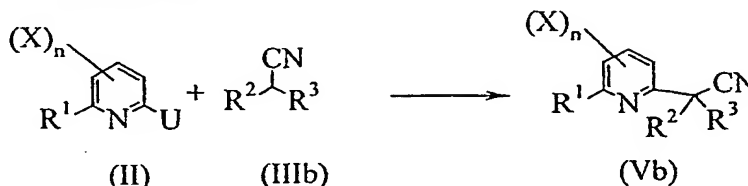
14. A process (C) for the preparation of compound of general formula (Ia)



wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^7$ , X, Y, n and p are as defined in claim 1;  
which comprises

- a first step according to reaction scheme C-1 :

Scheme C-1

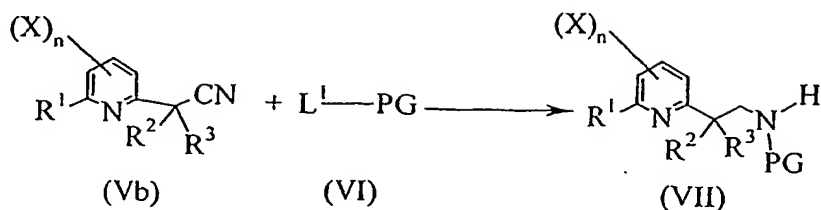


in which :  
-  $R^1$ ,  $R^2$ ,  $R^3$ , X and n are as defined in claim 1;  
- U is a leaving group chosen as being a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate or a  $C_1$ - $C_6$  haloalkylsulfonate;

comprising the arylation of a compound of general formula (IIIb) by a pyridine derivative of general formula (II) to provide a 2-pyridylacetonitrile derivative of general formula (Vb), in the presence of a base and at a temperature of from  $100^\circ\text{C}$  to  $200^\circ\text{C}$ ;

- a second step according to reaction scheme C-2 :

Scheme C-2



in which : -  $R^1, R^2, R^3, X$  and  $n$  are as defined in claim 1;

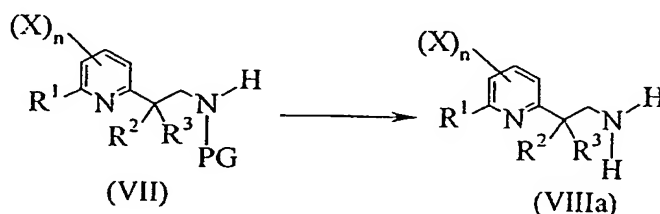
-  $L^1$  is a leaving group chosen as being a  $-OR^8$  group or a  $-OCOR^8$  group,  $R^8$  being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

-  $PG$  represents a protecting group which may be a  $-COOR^8$  group or  $-COR^8$  group,  $R^8$  being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

comprising the reduction, by hydrogenation or by an hydride donor, of a compound of general formula (Va) or (Vb), in the presence of a compound of general formula (VI) to produce a compound of general formula (VII);

- a third step according to reaction scheme C-3 :

Scheme C-3



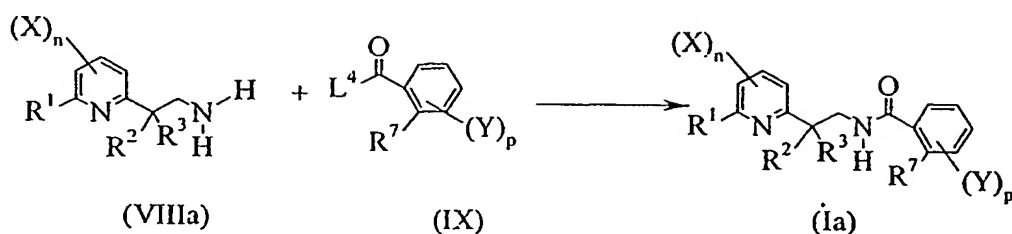
in which : -  $R^1, R^2, R^3, X$  and  $n$  are as defined in claim 1;

-  $PG$  represents a protecting group which may be a  $-COOR^8$  group or  $-COR^8$  group,  $R^8$  being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl;

comprising a deprotection reaction, in an acidic or in a basic medium, of a compound of general formula (VII) to provide an amine derivative of general formula (VIIIa) or one of its salt;

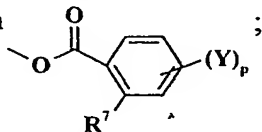
- a fourth step according to reaction scheme C-4 :

Scheme C-4



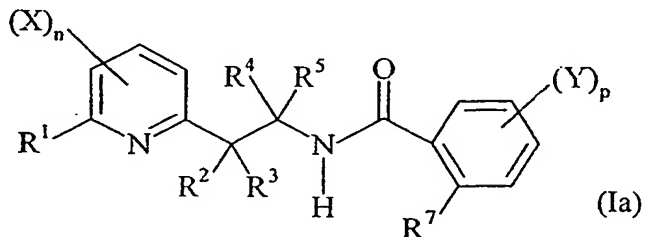
in which : - R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;

- L<sup>4</sup> is a leaving group chosen as being a halogen atom, a hydroxyl group, -OCHO, -SCSN(Me)<sub>2</sub>, an OR<sup>8</sup> group, an OCOR<sup>8</sup>, R<sup>8</sup> being a C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>1</sub>-C<sub>6</sub> haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula



- comprising a coupling reaction of an amine derivative of general formula (VIIIa) or one of its salt, with a carboxylic acid derivative of formula (IX) to provide a compound of general formula (Ia).

15. A process (D) for the preparation of compound of general formula (Ia)

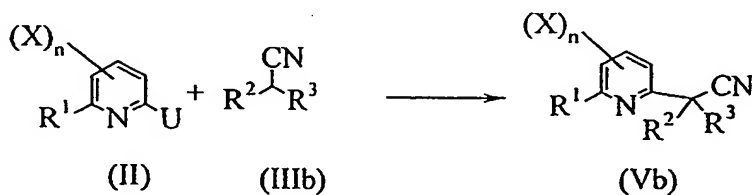


wherein : - R<sup>1</sup>, R<sup>2</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;  
- R<sup>3</sup> is a C<sub>1</sub>-C<sub>6</sub> alkyl;

which comprises

- a first step according to reaction scheme D-1 :

Scheme D-1



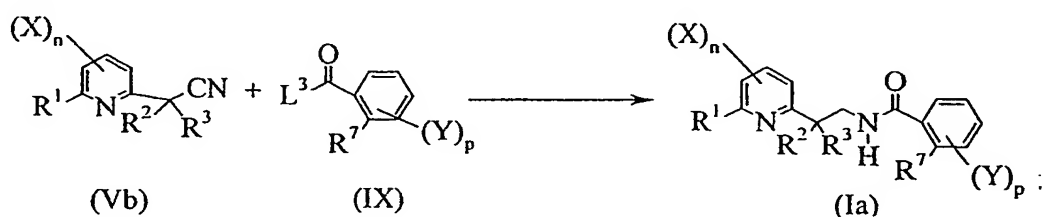
in which : - R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, X and n are as defined in claim 1;

- U is a leaving group chosen as being a halogen atom, a C<sub>1</sub>-C<sub>6</sub> alkylsulfonate or a C<sub>1</sub>-C<sub>6</sub> haloalkylsulfonate;

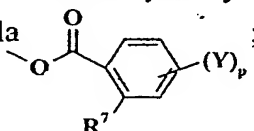
comprising the arylation of a compound of general formula (IIIb) by a pyridine derivative of general formula (II) to provide a 2-pyridylacetonitrile derivative of general formula (Vb), in the presence of a base and at a temperature of from -100°C to 200°C;

- a second step according to reaction scheme D-2 :

Scheme D-2

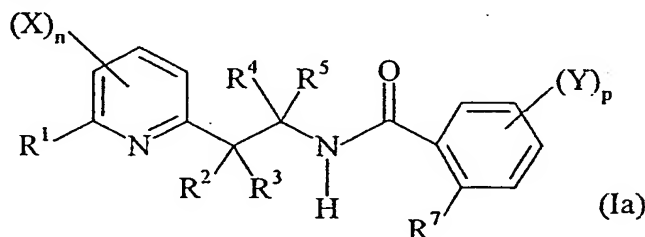


in which :  
 - R<sup>1</sup>, R<sup>2</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;  
 - R<sup>3</sup> is a C<sub>1</sub>-C<sub>6</sub> alkyl;  
 - L<sup>3</sup> is a leaving group chosen as being -OCOR<sup>8</sup>, R<sup>8</sup> being a C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>1</sub>-C<sub>6</sub> haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; -OCHO, -SCSN(Me)<sub>2</sub> or a group of formula



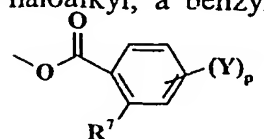
comprising the reduction by hydrogenation or by an hydride donor a compound of general formula (Va) or a compound of general formula (Vb) in the presence of a compound of general formula (IX) to provide a compound of general formula (Ia).

**16.** A process (E) for the preparation of compound of general formula (Ia)



wherein :  
 - R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;  
 - R<sup>4</sup> is a hydrogen atom, a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl;  
 - R<sup>5</sup> is a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl; - L<sup>4</sup> is a leaving group chosen as being a halogen atom, a hydroxyl group, -OCHO, -SCSN(Me)<sub>2</sub>, an

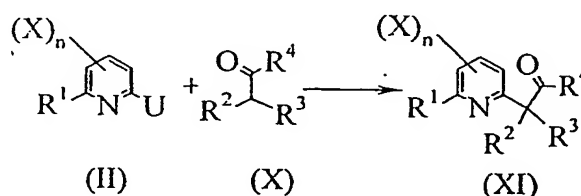
OR<sup>8</sup> group, an OCOR<sup>8</sup>, R<sup>8</sup> being a C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>1</sub>-C<sub>6</sub> haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula



which comprises

- 5 - a first step according to reaction scheme E-1 :

Scheme E-1

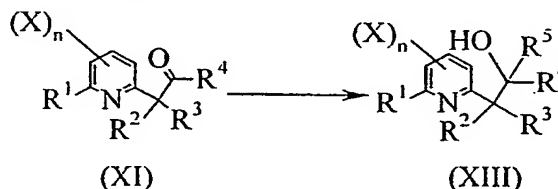


- in which :
- R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, X and n are as defined in claim 1;
  - R<sup>4</sup> is a hydrogen atom, a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl;
  - U is a leaving group chosen as being a halogen atom, a C<sub>1</sub>-C<sub>6</sub> alkylsulfonate or a C<sub>1</sub>-C<sub>6</sub> haloalkylsulfonate;

comprising the arylation of a compound of general formula (X) by a pyridine derivative of general formula (II) to provide a compound of general formula (XI);

- a second step according to reaction scheme E-2 :

Scheme E-2

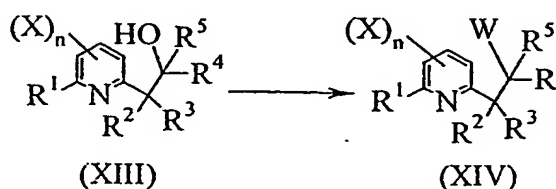


- in which :
- R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, X and n are as defined in claim 1;
  - R<sup>4</sup> is a hydrogen atom, a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl;

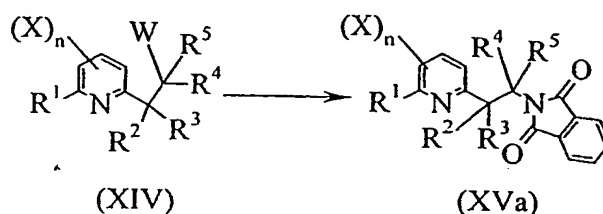
comprising the conversion of a compound of general formula (XI) into a compound of general formula (XIII) by addition of a compound of general formula R<sup>5</sup>-M, in which R<sup>5</sup> is a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl and M is a metal specie;

- a third step according to reaction scheme E-3 :

Scheme E-3

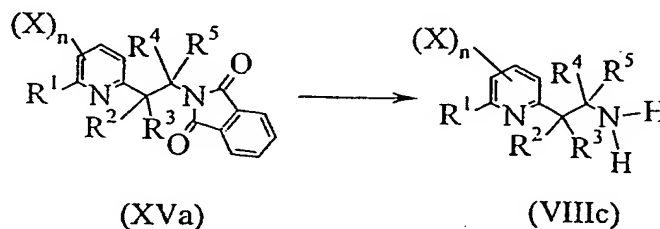


- in which :
- $R^1$ ,  $R^2$ ,  $R^3$ , X and n are as defined in claim 1;
  - $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - $R^5$  is a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - W is a leaving group chosen as being a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate, a  $C_1$ - $C_6$  haloalkylsulfonate or a 4-methyl-phenylsulfonate;
- 5 comprising the activation of a compound of general formula (XIII) by converting it into a compound of general formula (XIV);
- a fourth step according to reaction scheme E-4 :

Scheme E-4

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- in which :
- $R^1$ ,  $R^2$ ,  $R^3$ , X and n are as defined in claim 1;
  - $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - $R^5$  is a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - W is a leaving group chosen as being a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate, a  $C_1$ - $C_6$  haloalkylsulfonate or a 4-methyl-phenylsulfonate;
- 15 comprising the substitution of a compound of general formula (XIV) by a phthalimide derivative or one of its salt to provide a compound of general formula (XVa);
- a fifth step according to reaction scheme E-5 :

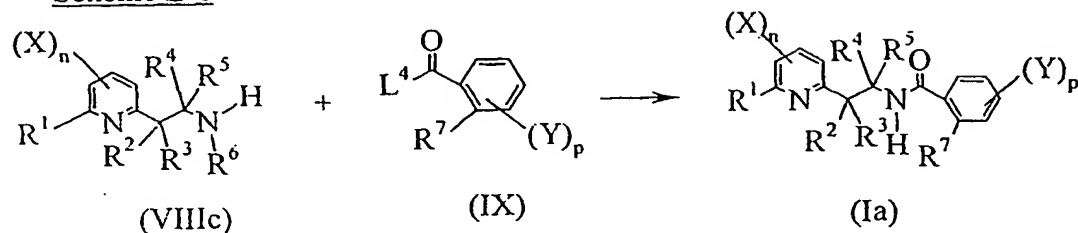
Scheme E-5

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- in which :
- $R^1$ ,  $R^2$ ,  $R^3$ , X and n are as defined in claim 1;
  - $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - $R^5$  is a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
- 25 comprising the de-protection of a compound of general formula (XVa) by reacting it with hydrazine hydrate or a hydrazine salt to provide an amine derivative of general formula (VIIIc) or one of its salt;

- a sixth step according to reaction scheme E-6 :

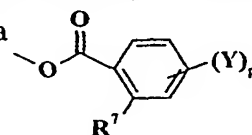
Scheme E-6



in which : - R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;

- 5 - R<sup>4</sup> is a hydrogen atom, a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl;  
 - R<sup>5</sup> is a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl; - L<sup>4</sup> is a leaving group chosen as being a halogen atom, a hydroxyl group, -OCHO, -SCSN(Me)<sub>2</sub>, an OR<sup>8</sup> group, an OCOR<sup>8</sup>, R<sup>8</sup> being a C<sub>1</sub>-C<sub>6</sub> alkyl, a C<sub>1</sub>-C<sub>6</sub> haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula

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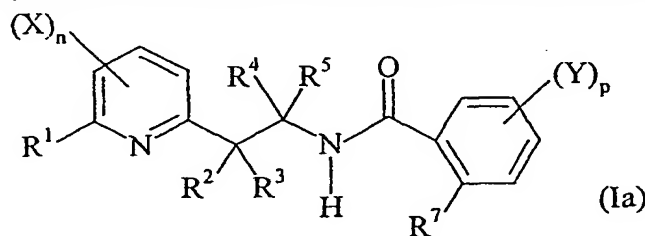


comprising a coupling reaction of an amine derivative of general formula (VIIIb) or one of its salt, with a carboxylic acid derivative of formula (IX) to provide a compound of general formula (Ia).

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17. A process (F) for the preparation of compound of general formula (Ia)

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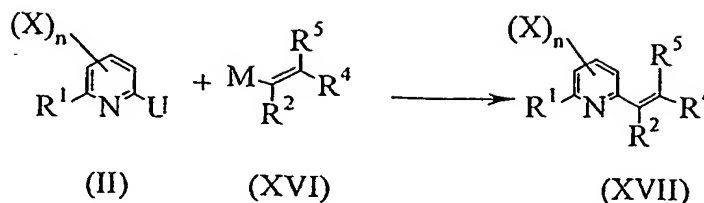


wherein : - R<sup>1</sup>, R<sup>7</sup>, X, Y, n and p are as defined in claim 1;

- 25 - R<sup>2</sup>, R<sup>4</sup> and R<sup>5</sup> are independently from each other chosen as being a hydrogen atom, a C<sub>1</sub>-C<sub>6</sub> alkyl or a C<sub>1</sub>-C<sub>6</sub> haloalkyl;  
 which comprises

- a first step according to reaction scheme F-1 :



Scheme F-1

in which : -  $\text{R}^1$ , X and n are as defined in claim 1;

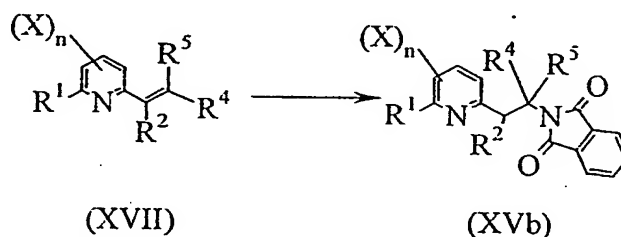
- U is a leaving group chosen as being a halogen atom a  $\text{C}_1\text{-C}_6$  alkylsulfonate or a  $\text{C}_1\text{-C}_6$  haloalkylsulfonate;

5 -  $\text{R}^2$ ,  $\text{R}^4$  and  $\text{R}^5$  are independently from each other chosen as being a hydrogen atom, a  $\text{C}_1\text{-C}_6$  alkyl or a  $\text{C}_1\text{-C}_6$  haloalkyl;

- M is a metal or a metalloid specie;

comprising a coupling reaction of a pyridine derivative of general formula (II) with a vinylic specie of general formula (XVI), at a temperature of from  $0^\circ\text{C}$  to  $200^\circ\text{C}$ , to provide a compound of general formula (XVII);

10 - a second step according to reaction scheme F-2 :

Scheme F-2

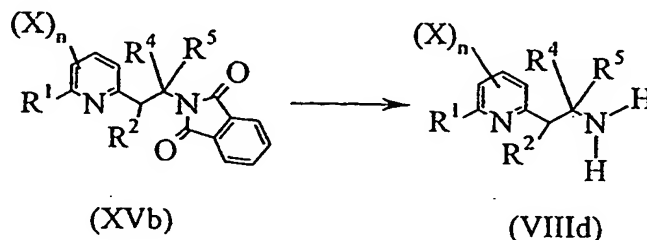
in which : -  $\text{R}^1$ , X and n are as defined in claim 1;

15 -  $\text{R}^2$ ,  $\text{R}^4$  and  $\text{R}^5$  are independently from each other chosen as being a hydrogen atom, a  $\text{C}_1\text{-C}_6$  alkyl or a  $\text{C}_1\text{-C}_6$  haloalkyl;

comprising the addition of a phthalimide or one of its salt on a compound of general formula (XVII) to provide a compound of general formula (XVb);

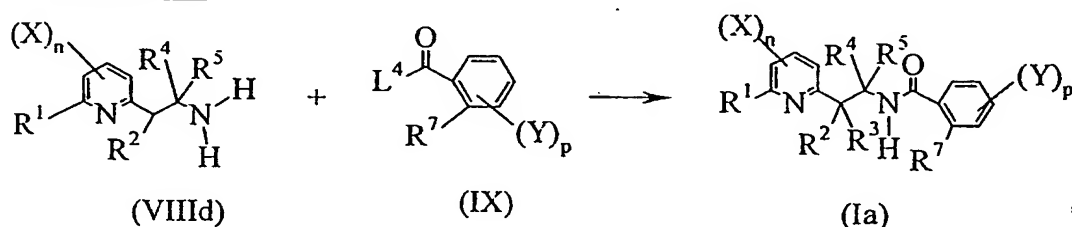
- a third step according to reaction scheme F-3 :

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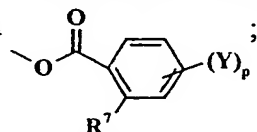
Scheme F-3

- in which : -  $R^1$ , X and n are as defined in claim 1;  
 -  $R^2$ ,  $R^4$  and  $R^5$  are independently from each other chosen as being a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;  
 comprising the de-protection of a compound of general formula (XVb) with  
 5 hydrazine hydrate or an hydrazine salt, to provide an amine derivative of general formula (VIIId) or one of its salts;  
 - a fourth step according to reaction scheme F-4 :

Scheme F-4



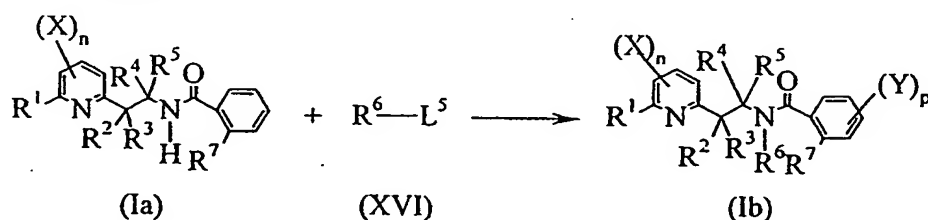
- 10 in which : -  $R^1$ ,  $R^7$ , X, Y, n and p are as defined in claim 1;  
 -  $R^2$ ,  $R^4$  and  $R^5$  are independently from each other chosen as being a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;  
 -  $L^4$  is a leaving group chosen as being a halogen atom, a hydroxyl group, -OCHO, -SCSN(Me)<sub>2</sub>, an OR<sup>8</sup> group, an OCOR<sup>8</sup>, R<sup>8</sup> being a  $C_1$ - $C_6$   
 15 alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula



- comprising a coupling reaction of an amine derivative of general formula (VIIIb) or  
 20 one of its salt, with a carboxylic acid derivative of formula (IX) to provide a compound of general formula (Ia).

18. A process according to any of the claims 12 to 17 which further comprises a  
 25 step according to reaction scheme G :

Scheme G



- in which : -  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ , X, Y, n and p are as defined in claim 1;

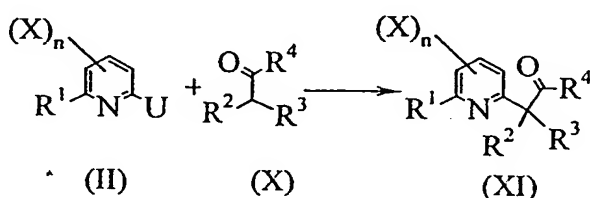
-  $L^5$  is a leaving group chosen as being a halogen atom, a 4-methyl phenylsulfonyloxy, a methylsulfonyloxy;  
comprising the reaction of a compound of general formula (Ia) with a compound of general formula (XVI) to provide a compound of general formula (Ib).

5

19. A process for the preparation of compound of general formula (I) as defined in claim 1, which comprises

- a first step according to reaction scheme H-1 :

Scheme H-1



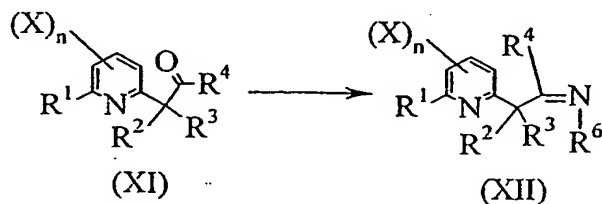
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in which :  
-  $R^1, R^2, R^3, X$  and  $n$  are as defined in claim 1;  
-  $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;  
-  $U$  is a leaving group chosen as being a halogen atom, a  $C_1$ - $C_6$  alkylsulfonate or a  $C_1$ - $C_6$  haloalkylsulfonate;

15 comprising the arylation of a compound of general formula (X) by a pyridine derivative of general formula (II) to provide a compound of general formula (XI), in the presence of a base, at a temperature of from  $0^\circ\text{C}$  to  $200^\circ\text{C}$ ;

- a second step according to reaction scheme H-2 :

Scheme H-2



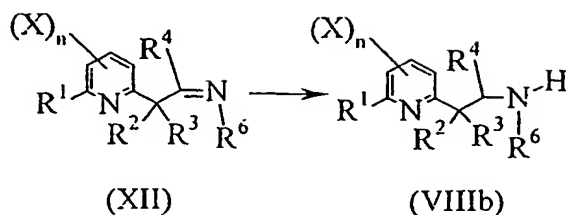
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in which :  
-  $R^1, R^2, R^3, X$  and  $n$  are as defined in claim 1;  
-  $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;  
-  $R^6$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a  $C_1$ - $C_6$  alkoxy or a  $C_3$ - $C_7$  cycloalkyl;

25 comprising the reaction of a compound of general formula (XI) with an amine of formula  $R^6-NH_2$  to provide an imine derivative of general formula (XII);

- a third step according to scheme H-3 :

## Scheme H-3



- in which :
- $R^1$ ,  $R^2$ ,  $R^3$ ,  $X$  and  $n$  are as defined in claim 1;
  - $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - $R^6$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a  $C_1$ -

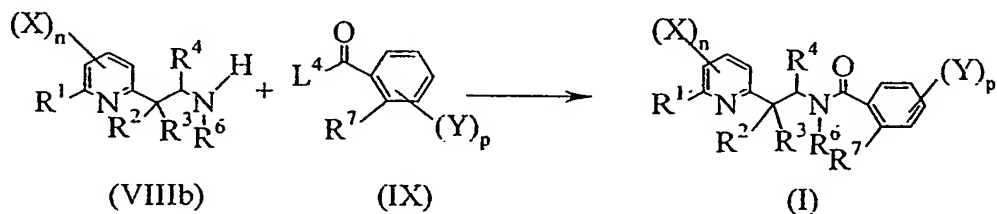
5  $C_6$  alkoxy or a  $C_3$ - $C_7$  cycloalkyl;

comprising the reduction of an imine derivative of general formula (XII) by hydrogenation or by an hydride donor, in the same or a different pot to provide an amine derivative of general formula (VIIIb) or one of its salt;

- a fourth step according to reaction scheme H-4 :

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## Scheme H-4

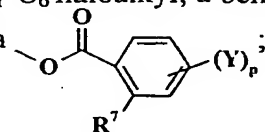


- in which :
- $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^7$ ,  $X$ ,  $Y$ ,  $n$  and  $p$  are as defined in claim 1;
  - $R^4$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl or a  $C_1$ - $C_6$  haloalkyl;
  - $R^6$  is a hydrogen atom, a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a  $C_1$ -

15  $C_6$  alkoxy or a  $C_3$ - $C_7$  cycloalkyl;

-  $L^4$  is a leaving group chosen as being a halogen atom, a hydroxyl group,  $-OCHO$ ,  $-SCSN(Me)_2$ , an  $OR^8$  group, an  $OCOR^8$ ,  $R^8$  being a  $C_1$ - $C_6$  alkyl, a  $C_1$ - $C_6$  haloalkyl, a benzyl, 4-methoxybenzyl or pentafluorophenyl; or a group of formula

20



comprising a coupling reaction of an amine derivative of general formula (VIIIb) or one of its salt, with a carboxylic acid derivative of formula (IX) to provide a compound of general formula (I).

25

20. Fungicidal composition comprising an effective amount of a compound

according to claim 1 and an agriculturally acceptable support.

21. Method for preventively or curatively combating the phytopathogenic fungi of crops, characterised in that an effective and non-phytotoxic amount of a composition according to claim 20 is applied to the plant seeds or to the plant leaves and/or to the fruits of the plants or to the soil in which the plants are growing or in which it is desired to grow them.